

REMARKS

Summary of the Office Action

Claims 25-28, 30, 31, 33, 34, and 40 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Yao et al. (US, 2003/0100059).

Claims 29 and 41 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yao et al. (US, 2003/0100059) in view of Hirose et al. (US, 5,811,251).

Claims 25-31, 33, 34, 40, and 41 stand rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement.

Claims 25-31, 33, 34, 40, and 41 stand rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

Summary of Response to the Office Action

Applicants respectfully traverse the rejection of claims for at least for the following reasons.

All claims complies with 35 U.S.C. § 112

In the Office Action, claims 25-31, 33, 34, 40, and 41 stand rejected under § 35 U.S.C. 112, first paragraph, as allegedly failing to comply with the written description requirement. In addition, claims 25-31, 33, 34, 40, and 41 stand rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. Specifically, on page 2 of the Action, the Office asserts that support for structural elements including “photo-detecting means”; “a first extracting member”; “a second extracting member”; “a specifying member”; and “an analyzing member” recited in independent claims 25 and 30 cannot be readily determined upon reviewing the

originally filed disclosure. Furthermore, on page 3 of the Action, the Office alleges that "it is not readily clear to one of ordinary skill in the art which of the disclosed structures provide the recited functions of the claims. As a result, the metes and bounds of the claims cannot be clearly determined." Applicants respectfully disagree.

Applicants respectfully submit that the "photo-detecting means" corresponds to a "cooled CCD camera 16" in FIG. 16. The support for the "photo-detecting means" is disclosed on page 20, line 23 to page 21, line 20 of the original specification. Similarly, the "first extracting member" corresponds to an "image processing unit 18" and a "control unit 20" as shown in FIG. 1, and "step 5" in FIG. 4. The support for the "first extracting member" is disclosed on page 24, line 17 to page 25, line 7, and page 27 lines 7-27 of the original specification. In addition, the "second extracting member" corresponds to an "image processing unit 18" and a "control unit 20" in FIG. 1, and "step 6" in FIG. 4. The support for the "second extracting member" is disclosed on page 25, line 8 to page 26, line 2, and page 28, line 1 to page 29, line 1 of the original specification. Furthermore, the "specifying member" corresponds to an "image processing unit 18" and a "control unit 20" in FIG. 1, and "step 7" in FIG. 4. The support for the "specifying member" is disclosed on page 25, line 8 to page 26, line 2, page 29, lines 2-12, and page 42, line 12 to page 43, line 8 (second embodiment) of the original specification. Moreover, the "analyzing member" corresponds to an "image processing unit 18" in FIG. 1 and "step 9" in FIG. 4. The support for the "analyzing member" is disclosed on page 30, line 13 to page 31, line 11, and page 45, line 16 to page 46, line 22 (second embodiment) of the original specification.

Accordingly, Applicants respectfully submit that the structural elements recited in at least independent claims 25 and 30 including "photo-detecting means," "a first extracting member,"

“a second extracting member,” “a specifying member,” and “an analyzing member” are clearly defined and supported by the original specification, thus claims 25-31, 33, 34, 40, and 41 complies with the requirements under § 35 U.S.C. 112, first paragraph and second paragraph. Accordingly, Applicants respectfully request that the rejection of claims under § 35 U.S.C. 112, first paragraph and second paragraph be withdrawn.

All Claims Define Allowable Subject Matter

In the Office Action, claims 25-28, 30, 31, 33, 34, and 40 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Yao et al. (US, 2003/0100059). Claims 29 and 41 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Yao et al. (US, 2003/0100059) in view of Hirose et al. (US, 5,811,251). Applicants respectfully traverse the rejection of claims at least for the following reasons.

With respect to independent claims 25 and 30, as previously presented, Applicants respectfully assert that Yao et al. does not teach or suggest at least the features of “specifying member” and “analyzing member.” On page 4 of the Action, the Office asserts that “the image device also determines the intensity of a second light emitted by the transfected cells as evidenced by FIG. 2c which plots the intensity of second light of transfected cells in addition of second light relative to non-transfected cells.” Applicants respectfully disagree.

As discussed in Example 1, Yao et al. measures the second light emitted from the “transfected cells,” however, Applicants respectfully submits that Yao et al. does not measure the second light emitted from the non-transfected cells. For example, Yao et al. at paragraph [0142] teaches that “upon addition of norepinephrine (NE) and forskolin (forsk) at the times indicated by arrows in FIG. 2, cytosolic calcium concentration started to rise in “GFP-positive” region/s

(i.e., transfected cells). This means that the “GFP-positive” region/s (i.e., transfected cells) is/are discriminated from the “non-transfected cells” and the second light is measured only from the GFP-positive region/s (i.e., tranfected cells). Accordingly, Applicants respectfully submits that the “GFP-positive” shown in FIG. 2c of Yao et al. appears that it is directed to the second light emitted from only the selected transfected cells (region) in the observation image.

On the other hand, in the Applicants’ claimed invention, non-transfected cells located in the cell colony (region) which emits the first light are included. In addition, to increase sensitivity of the intracellular reaction measurement, the specifying member specifies the expanded cell colony (i.e., non-tranfected cells) under a given condition. In other words, in the present invention, the second light emitted from the cell colony corresponding to the “GFP-positive” (i.e., transfected cells) and non-transfected cells under a given condition is measured. Although, Yao et al. specifies the transfected cells that emit the first light, Yao et al. does not specify the expanded cell colony (non-tranfected cells) under a given condition. In addition, the “Total cell” shown in FIG. 2c of Yao et al. appears to be directed to the second light emitted from the whole cell colonies (regions) including both transfected cells (i.e., GFP-positive) and non-transfected cells, not from the selected expanded colony. Accordingly, Applicants respectfully submit that Yao et al. fails to teach the features of “not only the expressed cell/s containing the stated protein but also the adjacent (i.e., closely adhered) cells to the expressed cell/s exhibit the same reactions as that of the expressed cells.” Accordingly, Applicants respectfully submits that Yao et al. fails to teach or suggest at least the features of “specifying member” and “analyzing member” recited in independent claims 25 and 30.

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In light of the arguments presented above, Applicants respectfully submit that the rejections under 35 U.S.C. §§ 102(e) and 103(a) should be withdrawn because Yao et al. and Hirose et al., whether taken single or combined, fails to teach at least the features of “specifying member” and “analyzing member” recited in independent claims 25 and 30. In addition, Applicants respectfully submit that Hirose et al. fails to cure the deficiency of Yao et al.. Moreover, Applicants respectfully submit that dependent claims 26-29, 31, 33, 34, 40, and 41 are allowable for at least the same reasons as set forth above with regard to independent claims 25 and 30 upon which they respectfully depend, as well as the individual features they recite.

CONCLUSION

In view of the foregoing remarks, Applicants respectfully request reconsideration of this application, withdrawal of all rejections, and the timely allowance of all pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicants’ undersigned representative to expedite prosecution.

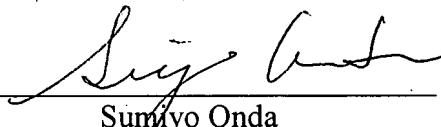
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If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.R.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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